Amendment to the Specification:

Please replace the first paragraph of the RELATED APPLICATIONS section, located on page 1, lines 5-9, with the following amended paragraph:

This application is a Continuation-in-Part of <u>abandoned</u> United States Patent Application Serial No. 09/256,847, filed March 10, 1999, which was in turn a Continuation of United States Provisional Patent Application, Serial No. 60/103,898, filed October 13, 1998.

Please replace the first two paragraphs of the DETAILED DESCRIPTION OF THE PREFERRED EMBODIMENTS section, from page 11 line 3 through page 14 line 3, with the following two amended paragraphs:

Referring first to FIGURES 1 and 2, there are shown a plan view and a side view, respectively, of a first embodiment of the radial/rotary propulsion system of the present invention, generally at reference number 10. A flywheel 12 is shown mounted on axle 14 through bearing assembly 16. Bearing assembly 16 is typically a one-way bearing to allow rotation of flywheel 12 in a single, predetermined direction and/or to allow coupling of the rotational motion of flywheel 12 to axle 14. Making bearing 16 a one-way bearing simplifies the electrical control (not shown) and guarantees rotation of flywheel 12 in a known direction at start-up. If a two-way bearing is used, an additional mechanism (not shown) for coupling the rotational motion of flywheel 12 to axle 14 must be provided. Such mechanisms are well known to those skilled in the art. Flywheel 12 is composed of a dense but magnetically nonconductive material. Brass, bronze, or certain nonmagnetic stainless steel alloys have been found suitable. A composite structure having a dense material such as lead bonded between structurally rigid plates could also be employed. The greater the mass of flywheel 12, the smoother the performance of the inventive radial/rotary propulsion system. Bearing assembly 16 allows flywheel 12 to rotate freely about axle 14 in a single, predetermined direction, assuming that bearing assembly [[14]]<u>16</u> is a one way bearing. Permanent magnets 18, 20 are affixed to a side surface (i.e., face) of flywheel 12. Magnets 18, 20 may be affixed to flywheel 12 using a structural adhesive or any mechanical fastening means suitable to withstand the centrifugal forces to which the magnets 18, 20 are subjected. Such fastening means are well

known to those skilled in the art. Magnets 18 are arranged in a substantially circular pattern at a first radius from the center of axle 14 forming a first magnet group 22. Likewise, magnets 20 are arranged in a substantially circular pattern at a second, smaller radius from the center of axle 14. Any number of magnets may be used in first magnet group 22 or second magnet group 24, although an even number is preferable, the magnets 18, 20 being arranged so that all magnets in magnet groups 22, 24 present the same polarity (i.e., the poles presented for interaction with external electromagnets are all are north poles or all are south poles). Permanent magnets 18, 20 must be spaced far enough apart around the face of flywheel 12 so as to provide a break in the magnetic fields generated by adjacent magnets. If sufficient space is not provided, either the inventive system will not operate at all, or will operate inefficiently. Permanent magnets 18, 20 may be provided on one or both faces of flywheel 12.

A series of electromagnets 26, 28 are positioned with their poles as close as possible to the first magnet group 22 and second magnet group 24, respectfully. Electrical leads 30, 32 are connected to a controller/sequencer 40 (FIGURE 6) which selectively applies power, generally from a capacitive discharge power supply circuit (not shown), typically forming a part of controller/sequencer 40. Power for electromagnets 26, 28 is provided by battery 38 (FIGURE 6). By properly sequencing and controlling the pulse width and amplitude of the DC pulses applied to electromagnets 26, 28, the rotational speed and torque output from the radial/rotary propulsion system may be controlled. If a two-way (not one-way) bearing assembly [[14]]<u>16</u> has been used, the direction of rotation may also be controlled. The use of short duration pulses facilitates high speed operation. By using a capacitive discharge type power supply, even with narrow pulses, enough energy may be imparted to the flywheel to maintain high torque output at these high operating speeds. Typically, magnets diametrically opposed (i.e., 180° apart from one another on the flywheel) are pulsed simultaneously. This minimizes lateral thrust forces on bearing 16 and thereby prevents excessive wear on bearing 16 as well as minimizing friction among bearing 16, flywheel 12 and axle 14.